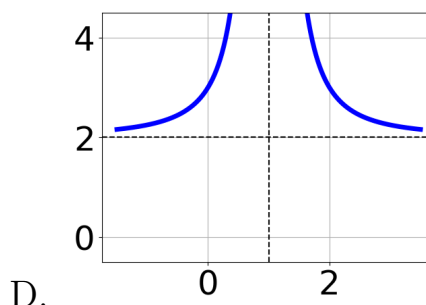
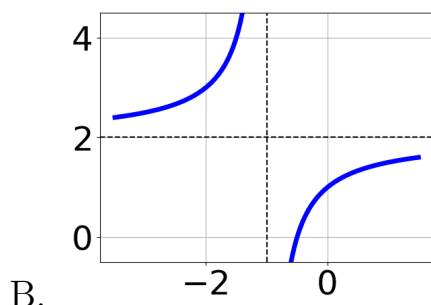
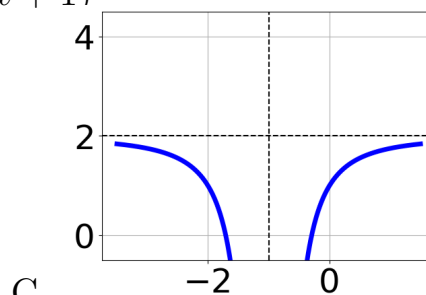
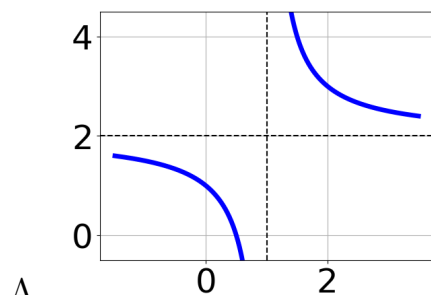


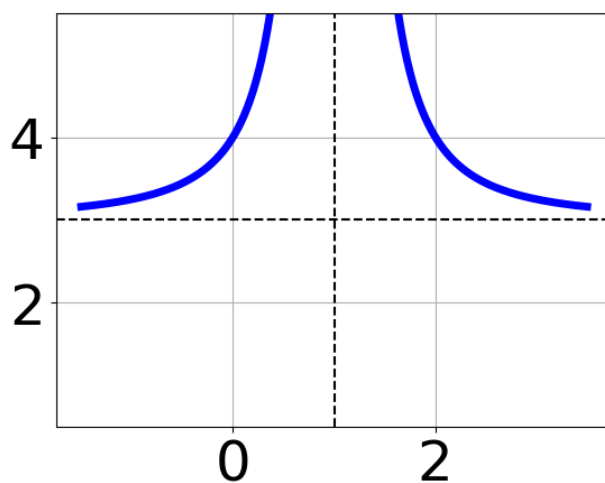
1. Choose the graph of the equation below.

$$f(x) = \frac{-1}{(x+1)^2} + 2$$



E. None of the above.

2. Choose the equation of the function graphed below.

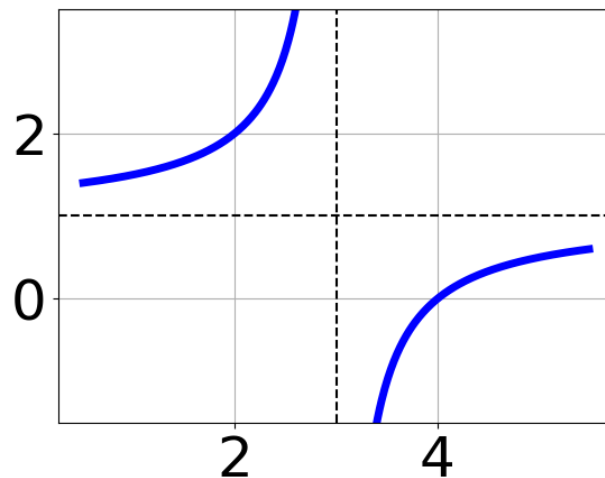


A. $f(x) = \frac{1}{(x-1)^2} + 3$

B. $f(x) = \frac{1}{x-1} + 3$

- C. $f(x) = \frac{-1}{x+1} + 3$
- D. $f(x) = \frac{-1}{(x+1)^2} + 3$
- E. None of the above
-

3. Choose the equation of the function graphed below.



- A. $f(x) = \frac{-1}{x-3} + 1$
- B. $f(x) = \frac{-1}{(x-3)^2} + 1$
- C. $f(x) = \frac{1}{x+3} + 1$
- D. $f(x) = \frac{1}{(x+3)^2} + 1$
- E. None of the above
-

4. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{-56}{-35x-14} + 1 = \frac{-56}{-35x-14}$$

- A. $x \in [-0.4, 0.6]$
 - B. $x_1 \in [-1.3, -0.3]$ and $x_2 \in [0.2, 1.2]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x \in [0.3, 1.6]$
 - E. $x_1 \in [-1.3, -0.3]$ and $x_2 \in [-1.5, -0.1]$
-

5. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{-7x}{2x-3} + \frac{-5x^2}{12x^2-24x+9} = \frac{-4}{6x-3}$$

- A. $x \in [-0.77, 0.63]$
 - B. $x_1 \in [0.55, 1.03]$ and $x_2 \in [-0.16, 0.48]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x_1 \in [0.82, 2.19]$ and $x_2 \in [0.46, 0.85]$
 - E. $x \in [0.82, 2.19]$
-

6. Determine the domain of the function below.

$$f(x) = \frac{5}{20x^2 - 5x - 25}$$

- A. All Real numbers except $x = a$, where $a \in [-25, -23]$
 - B. All Real numbers except $x = a$, where $a \in [-1, 1]$
 - C. All Real numbers.
 - D. All Real numbers except $x = a$ and $x = b$, where $a \in [-25, -23]$ and $b \in [19, 23]$
 - E. All Real numbers except $x = a$ and $x = b$, where $a \in [-1, 1]$ and $b \in [1.25, 2.25]$
-

7. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{5}{-4x - 2} + -7 = \frac{3}{36x + 18}$$

- A. $x \in [0.1, 1.4]$
 - B. $x_1 \in [-0.8, -0.2]$ and $x_2 \in [-0.4, 2.1]$
 - C. $x_1 \in [-0.8, -0.2]$ and $x_2 \in [-0.8, 0.2]$
 - D. $x \in [-0.69, 0.31]$
 - E. All solutions lead to invalid or complex values in the equation.
-

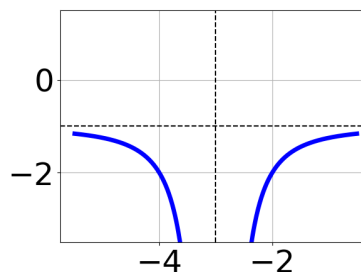
8. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{4x}{2x + 2} + \frac{-7x^2}{-12x^2 - 6x + 6} = \frac{-4}{-6x + 3}$$

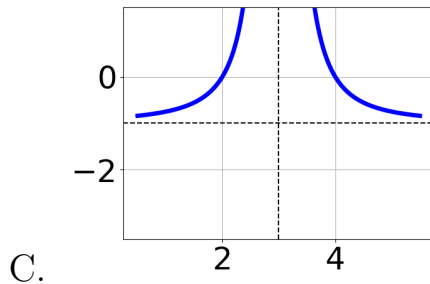
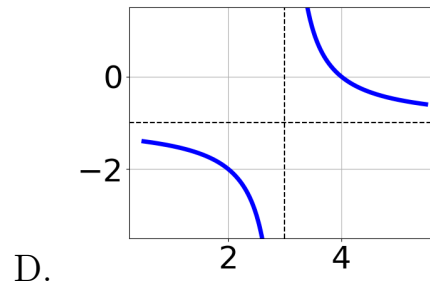
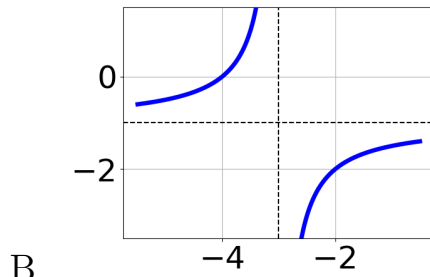
- A. All solutions lead to invalid or complex values in the equation.
 - B. $x \in [0.69, 0.98]$
 - C. $x_1 \in [-0.64, 0.28]$ and $x_2 \in [-1.7, -0.8]$
 - D. $x \in [-0.08, 0.57]$
 - E. $x_1 \in [-0.64, 0.28]$ and $x_2 \in [-0.8, 1.7]$
-

9. Choose the graph of the equation below.

$$f(x) = \frac{1}{x - 3} - 1$$



A.



E. None of the above.

10. Determine the domain of the function below.

$$f(x) = \frac{5}{20x^2 + 9x - 20}$$

- A. All Real numbers except $x = a$, where $a \in [-2.25, -0.25]$
- B. All Real numbers except $x = a$ and $x = b$, where $a \in [-2.25, -0.25]$ and $b \in [0.8, 3.8]$
- C. All Real numbers.
- D. All Real numbers except $x = a$, where $a \in [-20, -19]$
- E. All Real numbers except $x = a$ and $x = b$, where $a \in [-20, -19]$ and $b \in [17, 24]$